

WHAT IS CLAIMED IS:

1. A sheet processing device comprising:
  - a pair of sheet-conveying rotating members for conveying a sheet;
  - an upper conveying guide provided on the downstream side of said pair of the sheet-conveying rotating members in sheet conveying direction for guiding an upper surface of the sheet conveyed by said pair of sheet-conveying rotating members, said upper conveying guide being shiftable in the vertical direction;
  - a lower conveying guide provided below said upper conveying guide and opposed thereto for guiding a lower surface of the sheet conveyed by said pair of sheet-conveying rotating members and receiving and stacking the sheets;
  - upper guide shifting means for shifting said upper conveying guide; and
  - a sheet lift preventing member being shiftable in the vertical direction in conjunction with the shifting movement of said upper conveying guide;
- wherein said sheet lift preventing member is shifted to an upper position in spaced relationship to the sheet when a downstream end of said upper conveying guide is shifted downward, and is shifted to a lower position for preventing

the sheet from lifting when the downstream end of said upper conveying guide is shifted upward.

2. A sheet processing device according to Claim 1, wherein said upper conveying guide is rotatably disposed, said sheet lift preventing member is a rotatable member disposed for rotatable movement, and a center of rotation of said sheet lift preventing member is set to a position upstream in the sheet conveying direction of a center of rotation of said upper conveying guide.

3. A sheet processing device according to Claim 2, wherein said sheet lift preventing member is rotatably mounted on said upper conveying guide.

4. A sheet processing device according to Claim 3, wherein said sheet lift preventing member is situated so that when an upper end of said sheet lift preventing member is shifted to the upper position, the upper end abuts against a fixed member, and a lower end of said sheet lift preventing member rotates in a direction away from the sheet when the downstream end of said upper conveying guide is shifted downward.

5. A sheet processing device according to Claim 2,

wherein said sheet lift preventing member is mounted for rotating movement to a fixed member.

6. A sheet processing device according to Claim 5, wherein the fixed member is a supporting shaft of an upper rotating member of said pair of sheet-conveying rotating members.

7. A sheet processing device according to Claim 2, wherein when said sheet lift preventing member is in the lower position, a lower end of said sheet lift preventing member is positioned below a nip of said pair of sheet-conveying rotating members.

8. A sheet processing device according to Claim 2, wherein when said sheet lift preventing member is in the upper position, a lower end of said sheet lift preventing member is positioned above a nip of said pair of sheet-conveying rotating members.

9. A sheet processing device according to Claim 2, further comprising urging means for urging said sheet lift preventing member in a direction to move a lower end of said sheet lift preventing member toward the sheet.

10. A sheet processing device according to Claim 9, wherein said sheet lift preventing member is received by a supporting shaft of an upper rotating member of said pair of sheet-conveying rotating members.

11. A sheet processing device according to Claim 1, further comprising an arm member, said arm member being shiftable in the vertical direction, and arm elevating means for shifting said arm member in the vertical direction, wherein said upper guide shifting means shifts said upper conveying guide in conjunction with the shifting movement of said arm member.

12. A sheet processing device according to Claim 11, wherein centers of rotation of said upper conveying guide and said arm member are co-axially disposed.

13. A sheet processing device according to Claim 11, wherein said arm elevating means comprises a cam for shifting said arm member in the vertical direction by rotating while remaining in contact with said arm member.

14. A sheet processing device according to Claim 11, further comprising an upper sheet-discharging rotating member in opposing relation to each other, wherein said

upper sheet-discharging rotating member is disposed on said arm member.

15. A sheet processing device according to Claim 14, wherein a plurality of upper sheet-discharging rotating members and lower sheet-discharging rotating members are disposed alternately along an axis of rotation.

16. A sheet processing device according to Claim 1, further comprising:

sheet receiving means for receiving an upstream end in the sheet conveying direction of the sheet, which is stacked on said lower conveying guide; and

sheet processing means, disposed downstream of said pair of sheet-conveying rotating members, for processing the sheet stacked on said lower conveying guide and received by said sheet receiving means.

17. A sheet processing device according to Claim 16, wherein said sheet processing means is a stapler having a gap opening in a vertical direction, and a nip formed by said pair of sheet conveying rotating members and said sheet receiving means are disposed in the vertical opening region of the gap.

18. A sheet processing device according to Claim 17, wherein a lower portion of the stapler positioned below the opening is disposed at substantially the same level as said lower conveying guide, and an upper portion of the stapler positioned above the opening is disposed for motion toward and away from the lower portion.

19. A sheet processing device according to Claim 16, further comprising an upper sheet-discharging rotating member and a lower sheet-discharging rotating member disposed in horizontally opposing relation to each other, for discharging and conveying the stacked sheet, wherein each of said pair of sheet-conveying rotating members, said lower conveying guide, said sheet receiving means, said sheet processing means, said upper sheet-discharging rotating member and said lower sheet-discharging rotating member are substantially linearly aligned.

20. A sheet processing device according to Claim 16, further comprising sheet returning means for returning the sheet conveyed and stacked by said pair of sheet-conveying rotating members on said lower conveying guide in a direction opposite to the sheet conveying direction and bringing the sheet into abutment with said sheet receiving means.

21. A sheet processing device according to Claim 19,  
comprising:

a first processing mode comprising the steps of:  
positioning said upper conveying guide and said upper  
sheet-discharging rotating member at a lower position; and  
passing sheets through said lower conveying guide and  
discharging the sheets with said upper sheet-discharging  
rotating member and said lower sheet-discharging rotating  
member; and

a second processing mode comprising the steps of:  
shifting said upper conveying guide and said upper  
sheet-discharging rotating member upward;  
stacking a predetermined number of conveyed sheets  
intermediately on said lower conveying guide at a position  
after passing through said pair of sheet-conveying rotating  
members;

performing processing on the predetermined number of  
sheets with the sheet processing means, and shifting said  
upper conveying guide and said upper sheet-discharging  
rotating member downward; and

discharging the predetermined number of sheets by said  
upper sheet-discharging rotating member and said lower  
sheet-discharging rotating member.

22. An image forming apparatus comprising:

image forming means for forming an image on a sheet;

and

a sheet processing device comprising:

a pair of sheet-conveying rotating members for conveying a sheet;

an upper conveying guide provided on the downstream side of said pair of the sheet-conveying rotating members in sheet conveying direction for guiding an upper surface of the sheet conveyed by said pair of sheet-conveying rotating members, said upper conveying guide being shiftable in the vertical direction;

a lower conveying guide provided below said upper conveying guide and opposed thereto for guiding a lower surface of the sheet conveyed by said pair of sheet-conveying rotating members and receiving and stacking the sheets;

upper guide shifting means for shifting said upper conveying guide; and

a sheet lift preventing member being shiftable in the vertical direction in conjunction with the shifting movement of said upper conveying guide;

wherein said sheet lift preventing member is shifted to an upper position in spaced relationship to the sheet when a downstream end of said upper conveying guide is shifted

downward, and is shifted to a lower position for preventing the sheet from lifting when the downstream end of said upper conveying guide is shifted upward.

23. An image forming apparatus according to Claim 22, wherein said upper conveying guide is rotatably disposed, said sheet lift preventing member is a rotatable member disposed for rotatable movement, and a center of rotation of said sheet lift preventing member is set to a position upstream in the sheet conveying direction of a center of rotation of said upper conveying guide.

24. An image forming apparatus according to Claim 23, wherein said sheet lift preventing member is rotatably mounted on said upper conveying guide.

25. An image forming apparatus according to Claim 23, wherein said sheet lift preventing member is mounted for rotating movement to a supporting shaft of an upper rotating member of said pair of sheet-conveying rotating members.

26. An image forming apparatus according to Claim 23, wherein when said sheet lift preventing member is in the lower position, a lower end of said sheet lift preventing member is positioned below a nip of said pair of sheet-

conveying rotating members.

27. An image forming apparatus according to Claim 23, wherein when said sheet lift preventing member is in the upper position, a lower end of said sheet lift preventing member is positioned above a nip of said pair of sheet-conveying rotating members.

28. An image forming apparatus according to Claim 22, further comprising:

sheet receiving means for receiving an upstream end in the sheet conveying direction of the sheet, which is stacked on said lower conveying guide; and

sheet processing means, disposed down stream of said pair of sheet-conveying rotating members, for processing the sheet stacked on said lower conveying guide and sheet receiving means.

29. An image forming apparatus according to Claim 28, wherein said sheet processing means is a stapler having a gap opening in a vertical direction, and a nip formed by said pair of sheet-conveying rotating members and said sheet receiving means are disposed in the vertical opening region of the gap.

30. An image forming apparatus according to Claim 29, wherein a lower portion of the stapler positioned below the opening is disposed at substantially the same level as said lower conveying guide, and an upper portion of the stapler positioned above the opening is disposed for motion toward and away from the lower portion.

31. An image forming apparatus according to Claim 28, further comprising an upper sheet-discharging rotating member and a lower sheet-discharging rotating member disposed in horizontally opposing relation to each other, for discharging and conveying the stacked sheet, wherein each of said pair of sheet-conveying rotating members, said lower conveying guide, said sheet receiving means, said sheet processing means, said upper sheet-discharging rotating member and said lower sheet-discharging rotating member are substantially linearly aligned.